

ABSTRACT

Method of calibrating a microwave source

The present invention relates to a method for calibrating the phase of a microwave source, in which:

- a calibration circuit is closed, the calibration circuit comprising an injection channel connected to a measurement channel via the source to be calibrated;
- a test signal is injected through the source to be calibrated, the test signal being injected on the injection channel,
- the phase φ_m of the signal having passed through the source to be calibrated is measured, the phase of the signal being measured on the measurement channel, characterized in that:
- the amplitude A_m of the signal having passed through the source to be calibrated is measured, the amplitude of the signal being measured on the measurement channel;
- the calibration circuit is opened at the source to be calibrated;
- the test signal is injected on the injection channel;
- the phase φ_f and the amplitude A_f of the signal present on the measurement channel is measured;
- a corrected phase value φ_c is determined, this corrected phase being the phase of a complex number U_c , calculated from two complex numbers U_m and U_f , where:

$$U_m = A_m \cdot \exp(i \cdot \varphi_m)$$

$$U_f = A_f \cdot \exp(i \cdot \varphi_f)$$

Figure 6